

# The International Union for Conservation of Nature

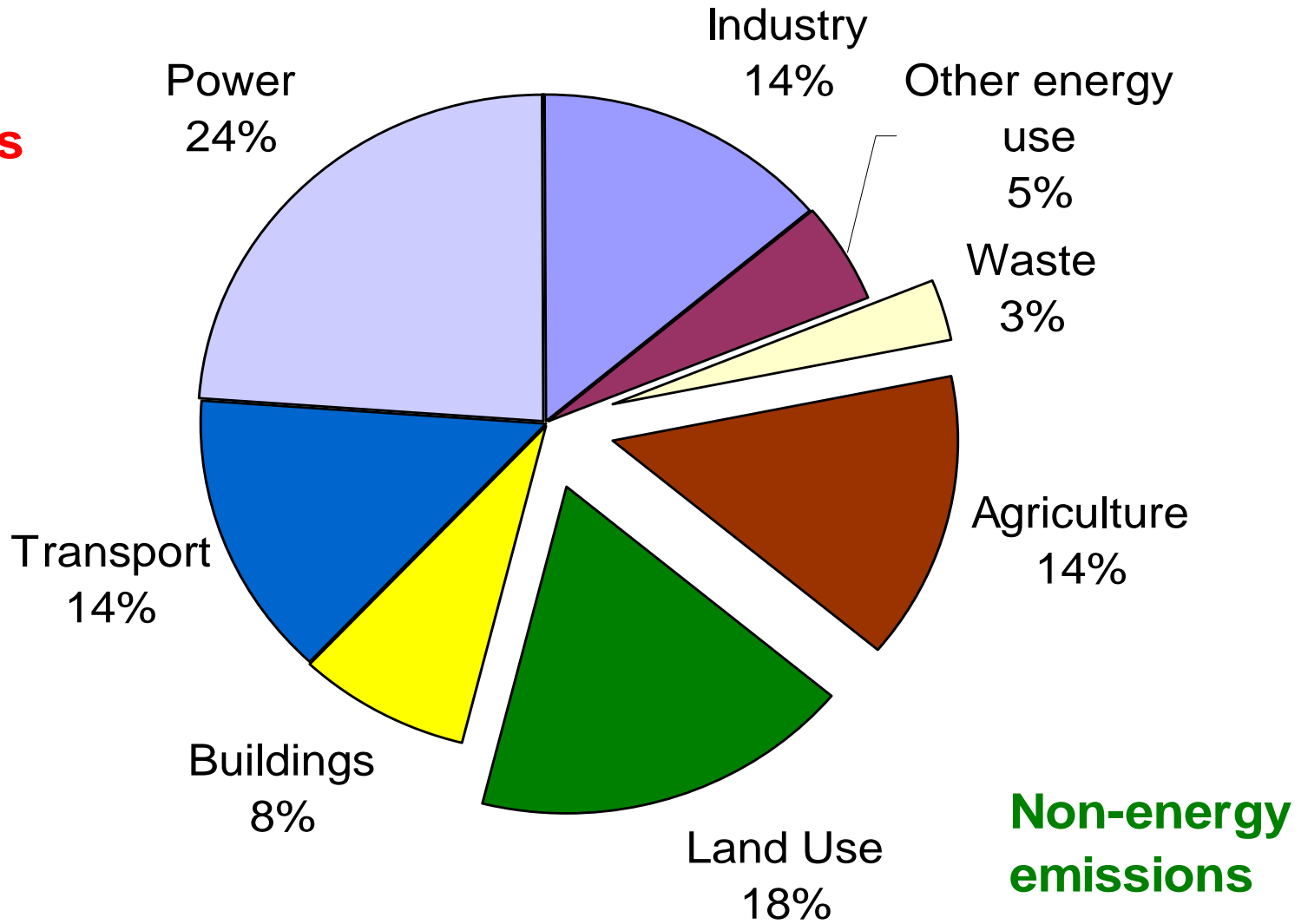


## The role of forest landscape restoration in addressing climate change



**Stewart Maginnis**

**Energy emissions**



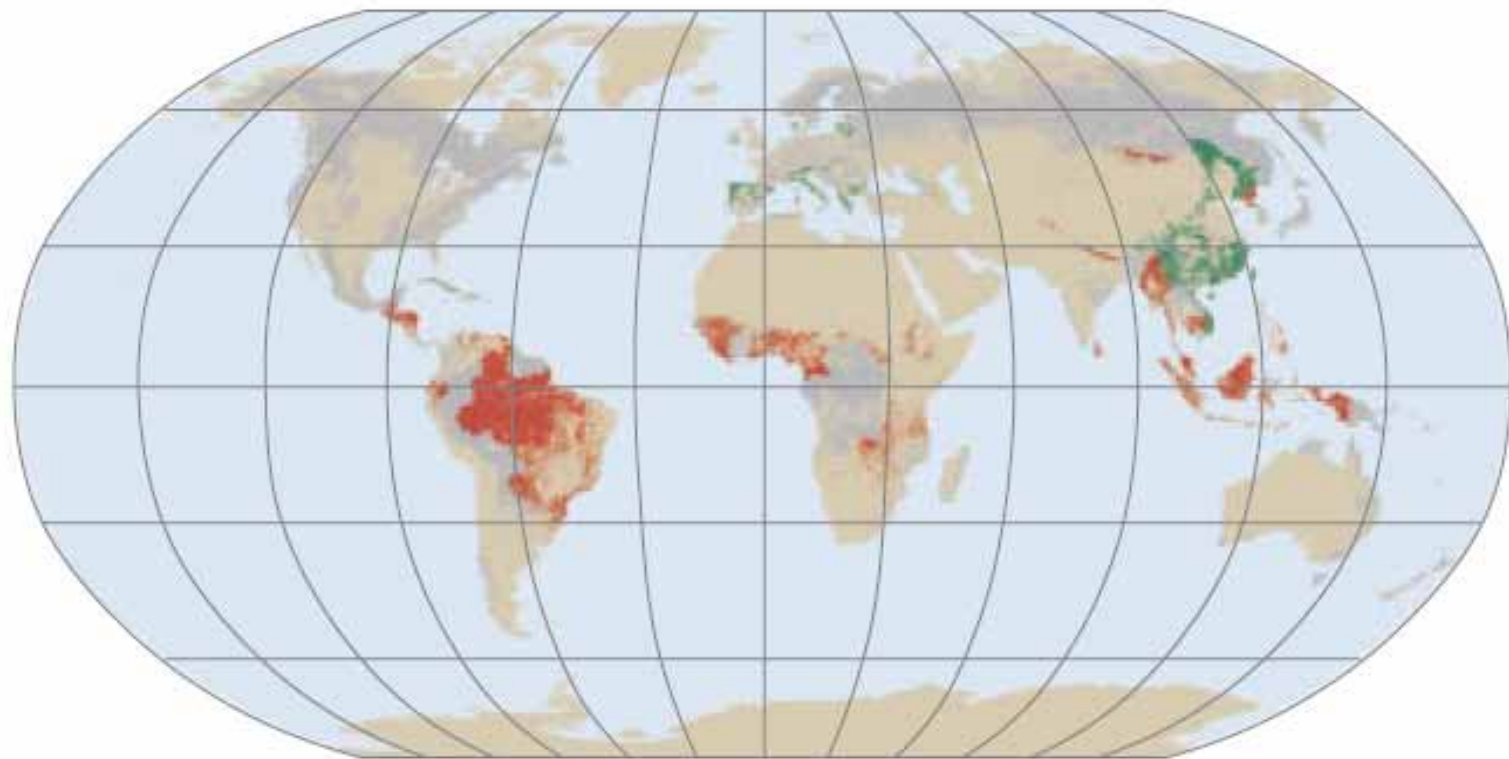
**Greenhouse gas emissions 2000**




Source Stern review 2006

# Forests and Climate Change



## Net changes in forest area 2000-2005



-  >0.50% decrease per year
-  >0.50% increase per year
-  Change rate between -0.50 and 0.50% per year

FAO 2005

- **What is at stake?**

- Sukbdev estimates USD 2 – 5 trillion natural forest capital lost each year
- Stern estimates USD 5 – 15 billion per year to cut deforestation rates by half!

- **But...**

- GEF invests USD 100 million in forests per year
  - Certified forest products annually= USD 120 million
  - ODA investments in forest protection = USD 800 million
  - NGO investments in forest conservation = USD 1.2 billion
- (source Coalition of Rainforest Nations)

- **So..**

- In theory, REDD payments could make up the difference

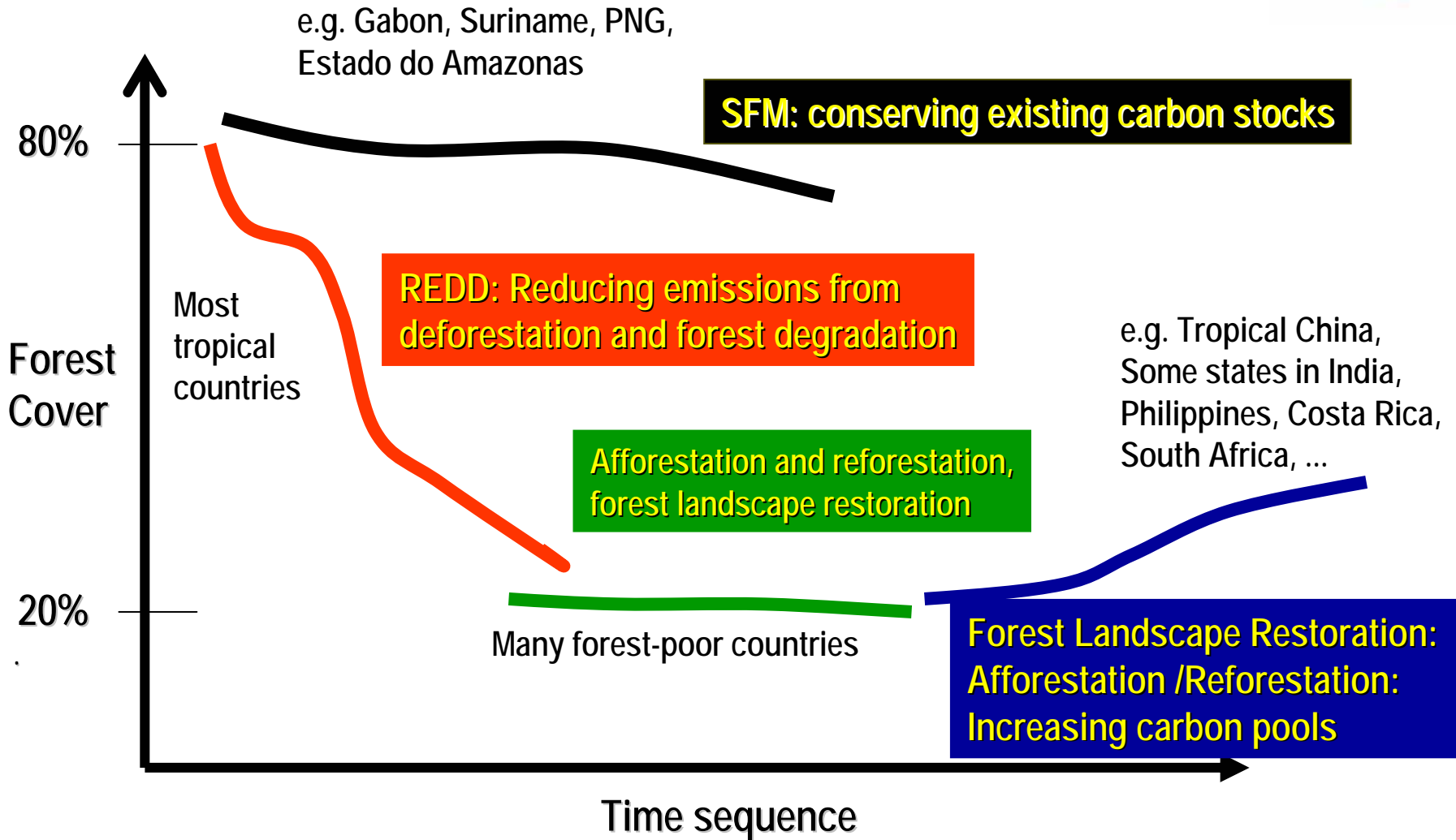


# The restoration link





# Tropical countries' forest endowment: Distinct situations, different approaches



Appropriate  
strategies will  
change over time!

## CASE STUDY: Western Region, GHANA

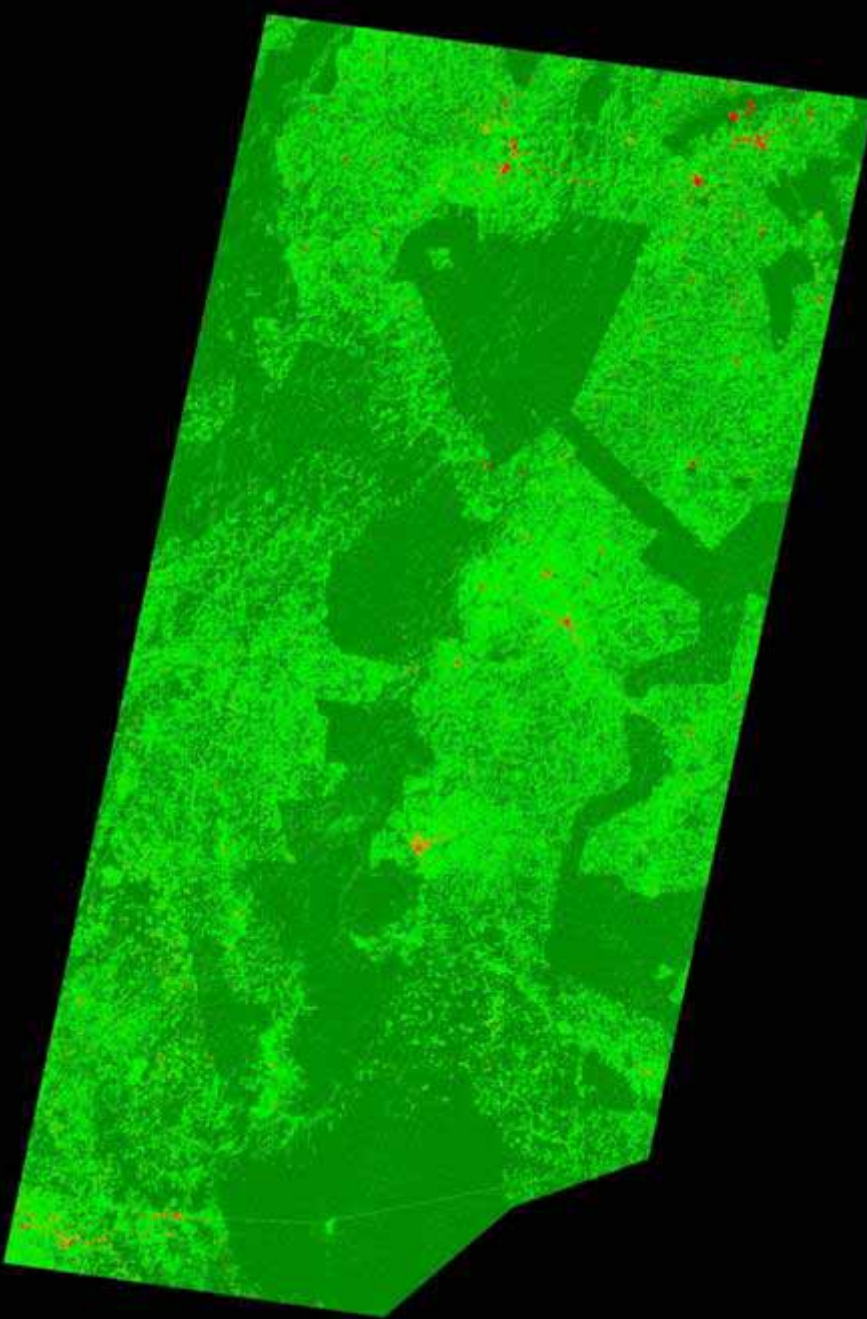
1986

Accuracy: 94 %

### Legend

-  Forest
-  Mixed land cover (mainly agroforest)
-  Urban
-  Bare soil

  
20 km



Approximately 2%  
per year

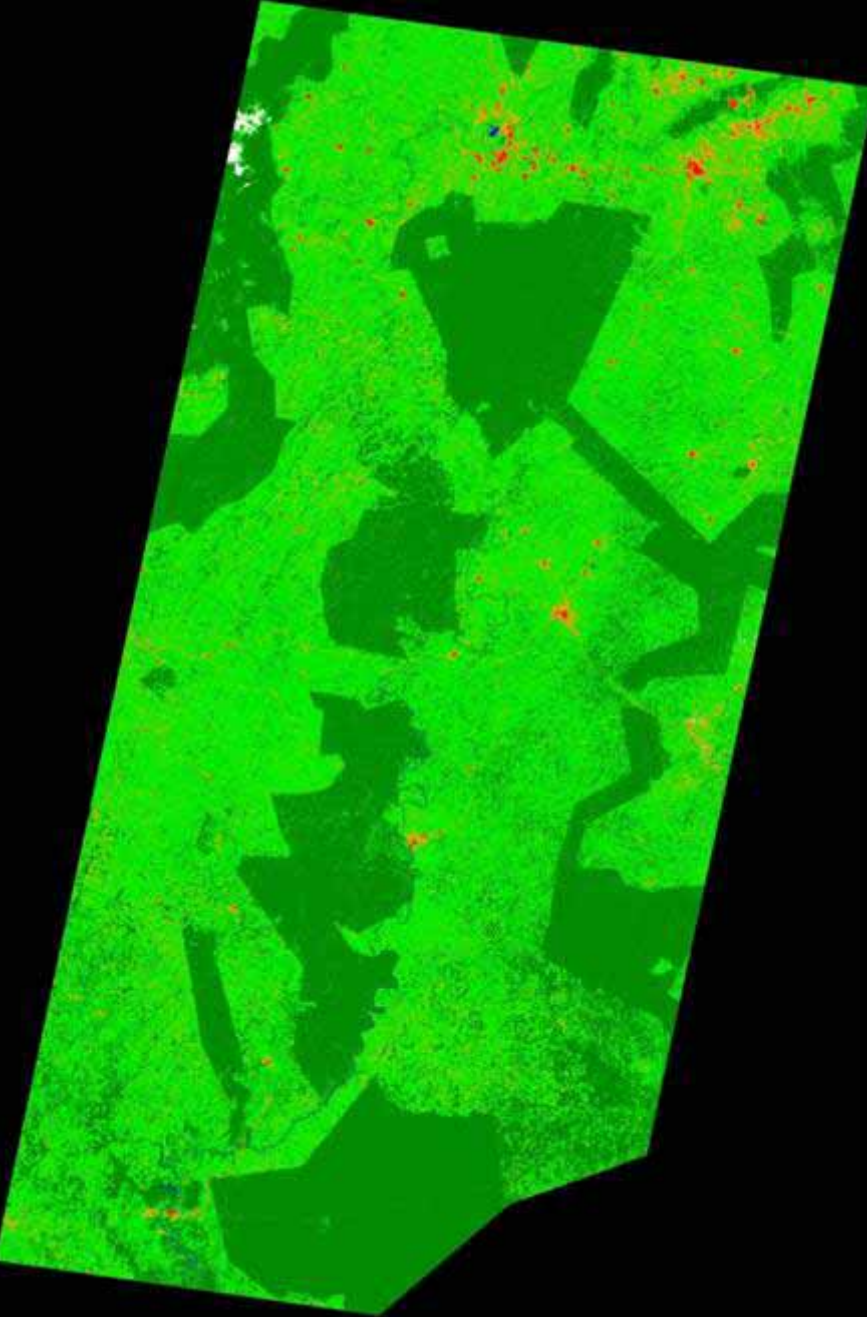
2000

Accuracy: 88%

Legend

-  Forest
-  Mixed land cover (mainly agroforest)
-  Urban
-  Bare soil

  
20 km





Little forest left  
outside gazetted  
forest reserves –

fewer opportunities  
to avoid  
deforestation

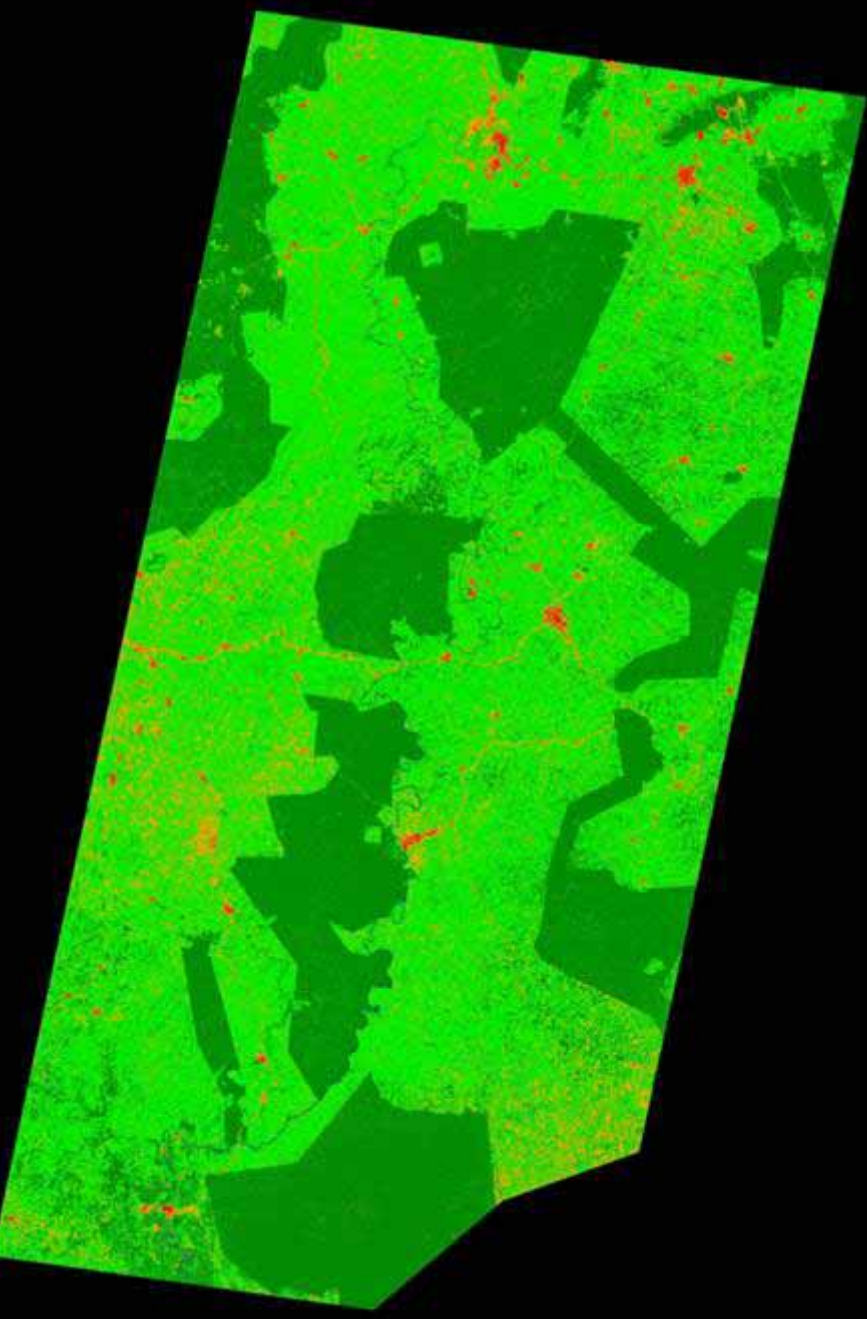
2007

Accuracy: 90 %

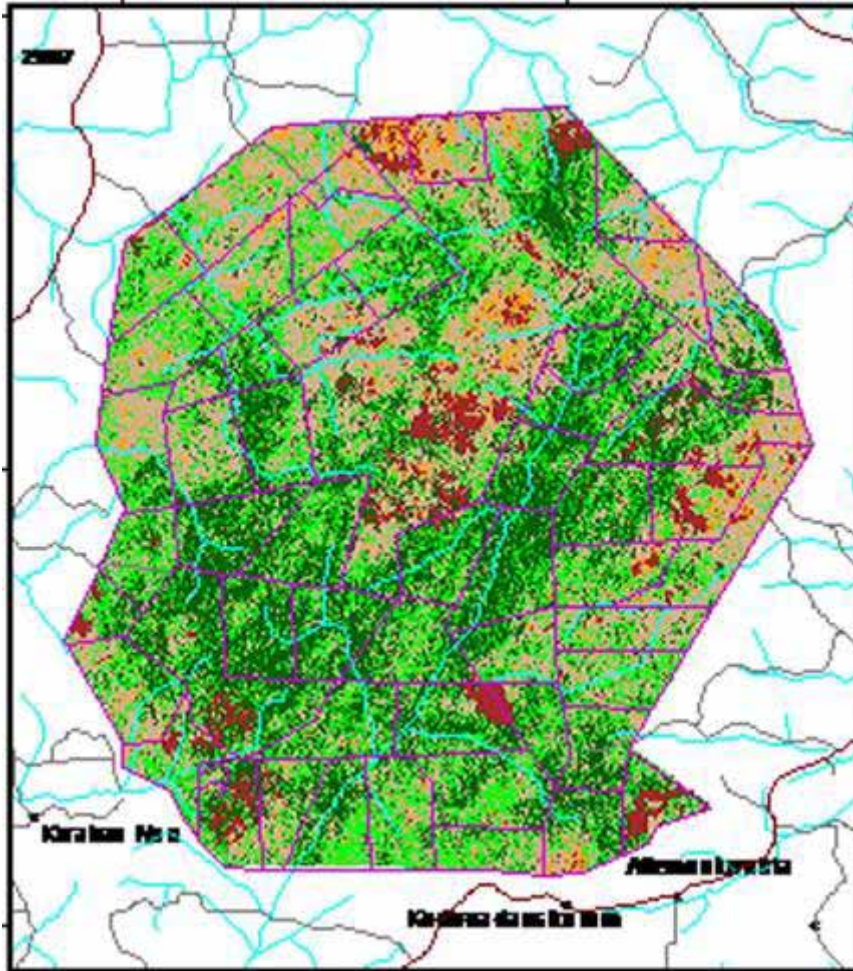
Legend

-  Forest
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20 km

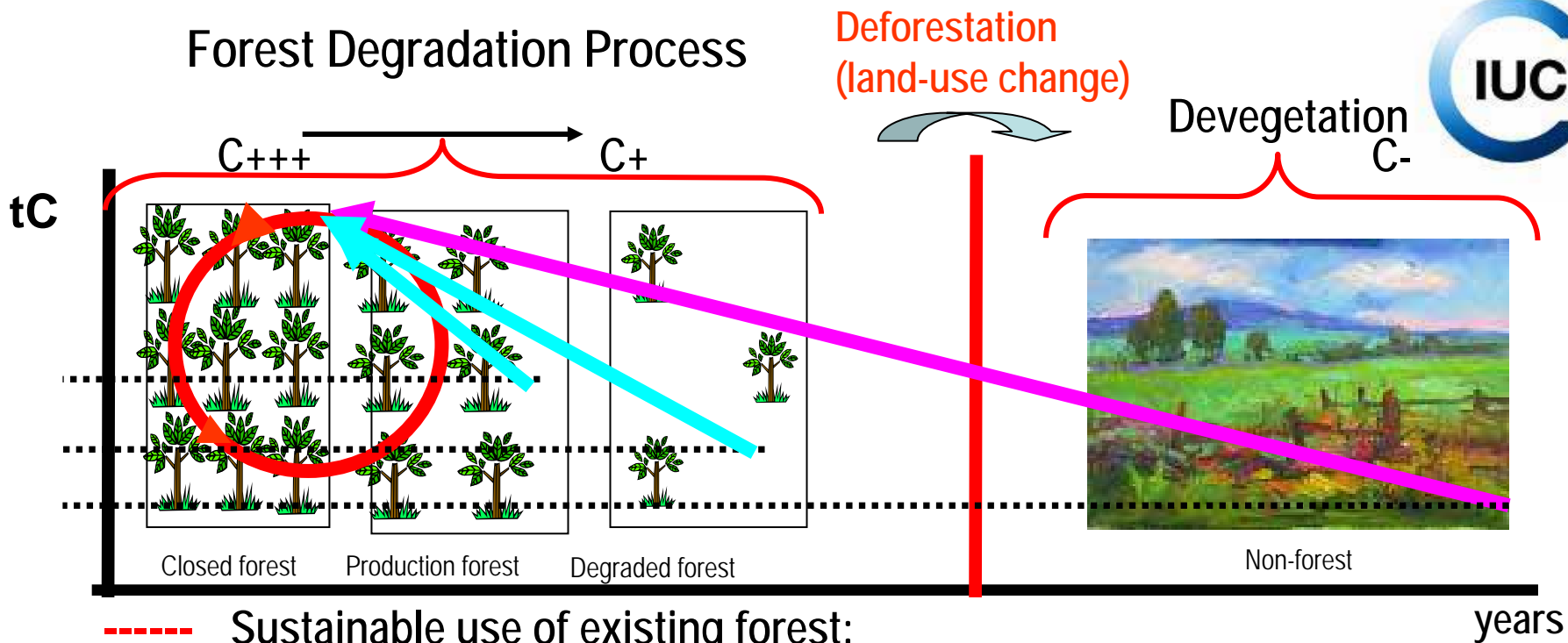


So perhaps the focus should shift to restoring degraded forest lands



Dome River Forest Reserve 2007

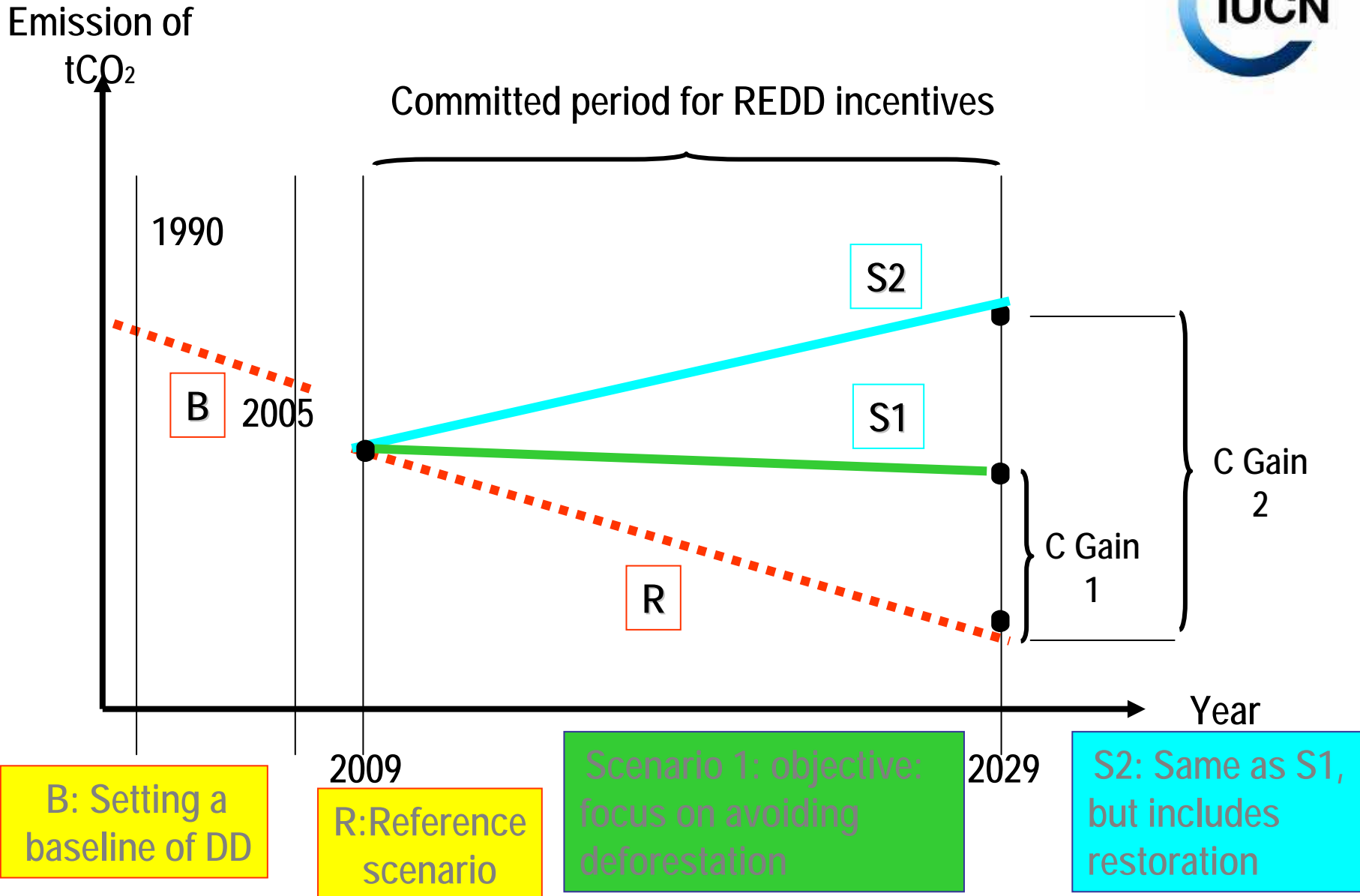
# Forest Degradation Process



- Sustainable use of existing forest:  
RED(D) → About 77 GtCO<sub>2</sub>e until 2030
- Plantations & Agroforestry: Carbon sequestration  
 → included in A/R CDM  
→ min. 18.7 GtCO<sub>2</sub>e up to 2030
- Forest Restoration on degraded forest lands:  
 → Not clearly considered as a mitigation option yet  
→ estimated at 117 GtCO<sub>2</sub>e up to 2030



# A REDD /forest restoration model



## KEY MESSAGE

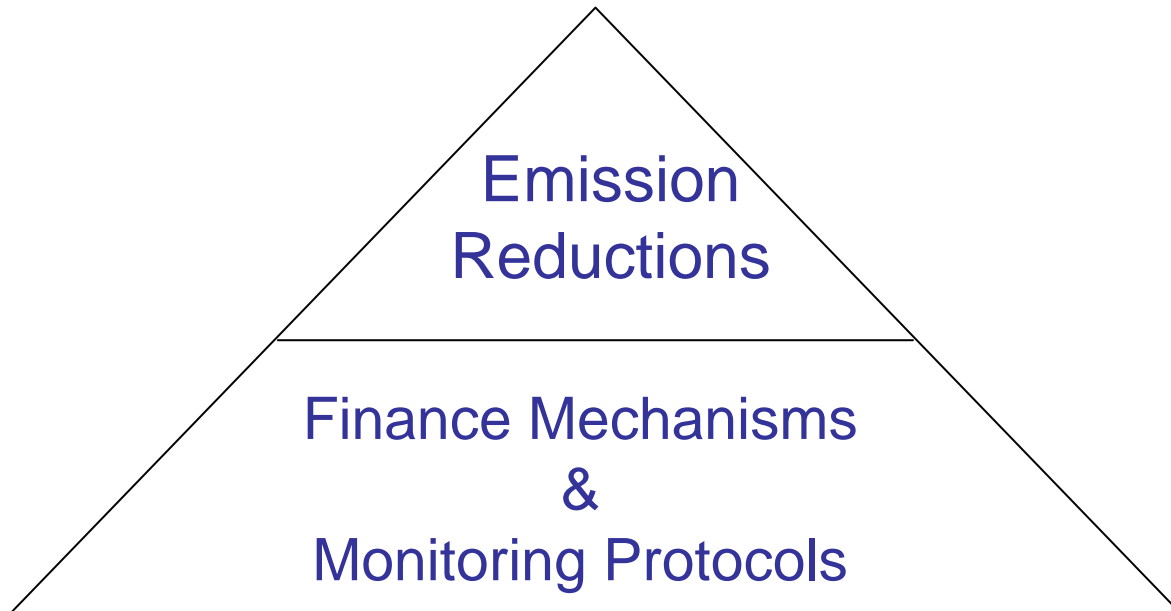
- The potential contribution that a multi-function, multiple value forest resource can make to climate change WILL SELDOM BE FULLY REALISED unless "REDD-type" arrangements include measures to halt and reverse forest degradation.

**WARNING:** Forests are more than sticks of carbon!





.. and simple carbon solutions may not even deliver mitigation benefits



# Other Challenges

- Payments for ecosystem services (such as carbon) appealing at the global level but it is at the national and sub-national level that the real challenges emerge:
- How to avoid creating perverse incentives for forest owners? E.g. early schemes in NZ effectively “nationalized” carbon and slowed the rates of private tree planting
- How to ensure that payments fairly benefit forest managers, forest owners and forest communities?
- Similar approaches needed to address these whether the focus is REDD or FLR

# Getting started



- Build on in-country capacity aimed at improving basic governance and complement processes designed to address degradation
- Participation of forest dependent communities and appropriate benefit sharing mechanisms
- Support national processes aimed at reviewing and clarifying forest rights & tenure
- Treat these problems as land-use (not simply forest) issues – involve other departments!
- Take a learning approach.